## Chapter 1

## Introduction

The U.S. meatpacking industry consolidated rapidly in the last two decades, as today's leading firms built very large plants and many independent packers disappeared. Today, four firms handle nearly 80 percent of all steer and heifer slaughter; just two decades ago, concentration was less than half as high. Although it has not grown as rapidly, concentration in hog slaughter has also increased, and today the top four firms handle over half of all slaughter.

Consolidation raises a host of policy issues. With few competitors, meatpackers may be able to reduce prices paid to livestock producers, and they may be able to raise meat prices charged to wholesalers and retailers. Indeed, livestock prices have been at the center of several recent lawsuits, congressional hearings, and Federal investigations. <sup>1</sup>

Related consolidation has occurred in livestock production: large cattle feedlots and hog farms account for high and growing shares of livestock sales, and their expansion is closely linked to the presence of large slaughter facilities nearby. Consolidation in production may worsen water pollution and odor problems, and has spurred intense debate over environmental policies in more than 20 States.

Slaughterhouses have always been risky places to work, and plants today rely on large workforces of immigrant workers to operate slaughter and fabrication lines.<sup>2</sup> As a result, slaughter plants frequently attract the scrutiny of job safety regulators and immigration authorities. Finally, a concentrated system of large plants and livestock producers may require a different set of regulatory strategies for reaching food safety

goals than would an industry with many small producers and slaughter plants (MacDonald et al., 1996).

Policy issues tend to address the effects of consolidation, whereas this report aims to assess causes. We use a unique and valuable data set to describe and to explain consolidation.<sup>3</sup> In particular, we examine how several innovations may have reduced slaughter costs and promoted consolidation among slaughter firms. Changes in slaughter plant technology may have created scale economies, altered the mix of slaughter plant products, and changed the location and operations of cattle and hog producers (which may affect the optimal location, scale, and operations of slaughter plants). In addition, changes in labor relations have led to reductions in wages and may have created additional scale economies. We believe that it is crucial to understand the causes of slaughter industry consolidation when fashioning appropriate public policies to deal with its effects.

The report relies on a unique data source, the U.S. Census Bureau's Longitudinal Research Database (LRD). The LRD details the records of individual establishments reported in the census of manufactures, for the years 1963, 1967, 1972, 1977, 1982, 1987, and 1992 (1997 census data will be processed too late for this report). The files detail the physical quantities and dollar sales of many different products sold from slaughter plants, the physical quantities and prices paid for material inputs, and employment and average wages for each establishment. The files also note ownership and location for each establishment. Because the LRD covers several censuses, we can make comparisons across plants at a point in time, as well as over time.

<sup>1</sup> For a summary, see Feder (1995), or the report of the Secretary of Agriculture's Advisory Committee on Agricultural Concentration (1996).

<sup>&</sup>lt;sup>2</sup> For a discussion of the transformation of rural communities, and the associated impacts on job injury risks and immigration rules, see Hedges and Hawkins (1996).

<sup>&</sup>lt;sup>3</sup> A companion report (Ollinger et al., 1999) analyzes the poultry sector.

While researchers can access individual LRD establishment records for research purposes, they may not divulge information on an individual plant or firm, and may publish only aggregated information. This report therefore presents aggregated statistical data and the

coefficients from regression analyses covering hundreds and, in most cases, thousands of establishment records. Any references to specific company or plant names are based on publicly available records, and not on any census source.